

171 173 propagated in the market. However, a more compact and lightweight [of] image reading device has been further required for these types.

Sub E<sup>2</sup> Column 2, paragraph beginning at line 21;

171 173 In order to overcome the above [disadvantage] disadvantages of the prior art, an object of this invention is to provide a device for reading an image (an image reading device) which has a compact structure, high photoresponsibility and highly-effective photosensitive and is capable of reading out an image with high precision and high gradation.

Sub E<sup>3</sup> Column 4, paragraph beginning at line 40;

171 173 Monocrystal silicon semiconductor serving as a target is sputtered by a mixed gas of hydrogen and argon to separate atomic silicon from the target due to the sputtering (impinging) of heavy atoms of argon upon the target. The separated silicon atoms [flight] fly to a substrate and [is] are deposited on a film-forming surface of the substrate. At the same time, an agglomerate into which atoms of several tens to several hundred thousand are assembled is also separated as a cluster from the target, [flights] flies to the substrate and is deposited on the film-forming surface of the substrate. During the flight of the silicon atoms and clusters, the hydrogen atoms bond to dangling bonds of the silicon atoms on the peripheral surface of the clusters. These clusters having Si-H bonds on the peripheral surface thereof are orderly deposited on the film-forming surface of the substrate and form an area in which the clusters are arranged with relatively high order (regularity) on the film-forming surface (hereinafter referred to as "high-orderly area"). That is, the [highly] high-orderly

(7)(173) clusters having the Si-H bonds on the peripheral surface thereof and the pure amorphous silicon are [mixed] deposited on the film-forming surface of the substrate. The deposited mixture is subjected to a heat treatment at 450° C. to 700° C. in non-oxidation (non-oxide) gas atmosphere to react each Si-H bond on the peripheral surface of the clusters with another Si-H bond of the clusters and form Si-Si bonds, so that a silicon semiconductor film is formed on the substrate.

Subt E<sup>4</sup> Column 5, paragraph beginning at line 37;

(7)(173) As the degree of the anchoring (linking) effect between the clusters in the semiconductor film is heightened, the carrier mobility is [more] increased. In order to heighten the anchoring effect, the amount of oxygen to be contained in the semiconductor film should be decreased below  $7 \times 10^{19} \text{ cm}^{-3}$ , and preferably below  $1 \times 10^{19} \text{ cm}^{-3}$ . In this case, the crystallization can be performed at a temperature below 600°C., and a high carrier mobility is obtainable.

Subt E<sup>5</sup> Column 7, paragraph beginning at line 3;

I (7)(173) Through the above annealing treatment, the silicon semiconductor film 3 is phase-I changed from an amorphous state to a [highly] high-orderly state, and a part thereof has a crystal state. Particularly, an area which has a relatively highly orderly arrangement in the film-forming process is promoted to be crystallized and the phase state thereof is liable to be changed to the crystal state. However, this area is linked to another area through silicon atoms therebetween, and thus pull against one another. In the laser Raman spectrometry for